Perspectives on Europe's Monetary Unification

Farewell Lecture

Thygesen, Niels

Publication date:
2005

Document version
Publisher's PDF, also known as Version of record

Citation for published version (APA):
Thygesen, N. (2005). *Perspectives on Europe's Monetary Unification: Farewell Lecture*. Department of Economics, University of Copenhagen.

EPRU Analyse 2005/23

Economic Policy Research Unit
Department of Economics
University of Copenhagen
Studiestræde 6
DK-1455 Copenhagen K
DENMARK
Tel: (+45) 3532 4411
Fax: (+45) 3532 4444
Web: http://www.econ.ku.dk/epru/

Perspectives on Europe's Monetary Unification

Niels Thygesen

The activities of EPRU are financed by a grant from
The National Research Foundation

ISSN 0908-7753

December 2004

Perspectives on Europe's Monetary Unification

by Niels Thygesen[*]

Farewell Lecture, University of Copenhagen
10 December 2004

[*] Professor of International Economics, University of Copenhagen

Six years ago, shortly before the start of Economic and Monetary Union on 1 January 1999, I was invited to give the Marjolin Lecture at a Colloquium in Frankfurt (held by SUERF). I had chosen the title: "Evolving Ambitions in Europe's Monetary Unification"[1], identifying as the two core achievements of EMU the simultaneous elimination of nominal exchange-rate fluctuations between the participants and of nearly all of the inflation of the previous three decades. Other economic ambitions had also at times provided additional inspiration for the unification process: better coordination of non-monetary macroeconomic policies, the development of a stronger role for Europe in the international monetary system and the realisation of an integrated financial market, underpinned by convergent supervisory and regulatory practices. The launching of the Euro would make the realisation of these additional ambitions possible, but could not in itself assure it.

This framework seems to me still broadly appropriate six years later. So I shall start with a personal historical perspective, necessarily highly selective and idiosyncratic, on the long process leading up to 1999, moving subsequently to a briefer evaluation of how EMU has worked in its first six years and of the current state of the other ambitions identified. Here there is obviously a good deal of accumulated evidence. It is also necessary in this section to ask why the overall economic performance of the Euro area has remained disappointing despite EMU.

A final section of this lecture is my acknowledgement of the substantial intellectual debts I have incurred in my long association with the University of Copenhagen and with the many colleagues, academic economists and officials, who have shared a keen engagement in Europe's monetary unification, not least those who have shown me the honour of participating in to-day's conference. I have prepared this lecture without the benefit of knowing what they were going to say to-day and I have heard a great deal that I would like to reflect on[2].

A personal historical perspective 1973-98

My early work as an academic economist was on monetary theory and policy, initially in the context of my own country, from the early 1970s in a comparative context when directing at the OECD a series of studies on the role of monetary policy in demand management in six large industrial economies[3]. Much of this work was aimed at evaluating large-scale models of the monetary transmission mechanism. At that time this topic required one to focus more on various methods of direct intervention in credit flows and of capital controls than on the interaction of economies and the importance of the exchange-rate regime; anyway, most of the experience was at that time with fixed rates. For that reason my co-author Kumi Shigehara and I were taken severely to task by more

[1] Artis, Weber and Hennessy (eds.) (2000).
[2] Birch Sørensen (ed.) (2004)
[3] OECD Monetary Studies Series ending with summary volume OECD (1975)

globalist monetary economists (such as Harry Johnson and Karl Brunner) when the results were presented at the UK Money Study Group and the Konstanz Seminar: we had not sufficiently absorbed the work of Mundell and McKinnon on the international aspects of money creation and inflation and the policy rules implicit in this approach for the design of international or regional monetary coordination.

In this respect I was soon to learn more. Denmark had joined the European Economic Community (as it was then called) in 1973 and the creation of an Economic and Monetary Union (EMU) was at that time still formally on the agenda. Towards the end of 1973 I was asked by the European Commission to serve on an expert group, chaired by former Commission Vice President Robert Marjolin, charged with evaluating whether EMU was still feasible by 1980 and, if so, what steps should be taken to get there.

This was a rude awakening to reality, because the answer clearly had to be no. Europe was entering a cycle of inflation at double-digit rates in several countries. Remarkable divergence had become visible in the national policy responses to the international disturbances in the form of the first massive oil price hike and major dollar depreciation as the Bretton Woods system – which had provided a comforting framework also at the European regional level until around 1970 - broke up. Some of the members of our group had been centrally involved in the preparation of the Werner Plan for EMU of 1970 and still felt that, if only the governments had been bolder and moved rapidly to locking exchange rates then, the project might have been saved. But most of my colleagues, including the two most senior economists in the group, Herbert Giersch and Donald McDougall, were far more sceptical. They pushed us to focus on more immediate tasks such as containing the flare-up of inflation and developing mechanisms for balance-of-payments support between the member states.

Robert Marjolin gave the conclusions of our report a stark twist. Like some others of his enviable generation who had played important roles in the early post-war reconstruction of Europe when major strides in economic co-operation were made on a regular basis, he had become somewhat cynical and, in particular, had retained little respect for his political successors. Politicians have no real understanding of what is involved in EMU, the Marjolin Report argues. This was probably not an unfair assessment, although they had been warned; the Werner Report had argued that EMU would require not only a "community system for the central banks" somewhat like the US Federal Reserve, but also" a Centre of decision for economic policy" with decisive influence over national budgetary policies and politically responsible to the European Parliament[4]. This second institutional innovation reflected the optimism prevailing in the late 1960s in policy circles and backed by many prominent academics regarding the stabilising properties of budgetary policies. So it may have been more accurate to say that the politicians by the mid-1970s had understood what such a version of EMU would require, found it excessive and backed down from it – except to continue to pay lip service to the ideal.

[4] See Baer and Padoa-Schioppa (1989)

On a couple of points Marjolin no doubt went too far. In his Memoirs of 1986[5] he notes with some pride that the report which his group produced had one effect: "there was no more talk of EMU" and he speculates that the European Monetary System (EMS), set up a few years later was a practical arrangement responding to the problems identified in the report and not a step towards EMU. Anyway I was soon to experience that EMU in the sense of rigidly fixed exchange rates (or a single currency) combined with low inflation was still some time off.

The Commission did not appreciate the tone of the Marjolin Report and it was never published. Instead two follow-up working groups were launched – one on the EEC as an optimum currency area and another on how the principles of fiscal federalism could be applied to the design of the Community budget. Although I became a member of the former group, labelled *OPTICA*, I have to recognise that the second group, chaired by Donald McDougall, probably made a more lasting contribution[6]. But its conclusion, viz. that there was a strong case on efficiency and allocation grounds, for a significant Community budget, scared national policy-makers to take this issue off the EEC agenda when Commission President Roy Jenkins tried to advance it in 1977. It has not really come back since.

The *OPTICA*-group in its two reports[7] basically agreed that on the basis of the experience of the mid-1970s, movements in intra-EEC exchange rates had become an important source of disturbance rather than a mechanism of adjustment. Excess inflation in countries such as Italy and the United Kingdom had been overcompensated by depreciations of the lira and of sterling which then fed further inflation. To constrain spirals in prices and exchange rates, the *OPTICA*- group proposed a version of a PPP-rule for managing intra-EEC nominal exchange rates: rates should not be allowed to change faster than indicated by inflation differentials, and preferably more slowly.

Some of us in the *OPTICA*-group thought this agenda was too defensive, so we joined a parallel private initiative which saw efforts at European monetary integration as a vehicle for sharply reducing inflation in Europe, rather than for accommodating existing inflation differentials. Such an approach was appealing to liberal academic economists of the Hayek tradition who saw competition between national currencies as an important mechanism for reducing the scope for the kind of lax and divergent monetary policies that were observable in Europe in the mid-1970s. It also appealed to leading UK monetarists such as David Laidler and Michael Parkin. In an exciting two-day drafting session at Leuven nine of us produced the so-called *All Saints Day Manifesto*[8] which *The Economist* published on 1 November 1975 – with some reluctance, I recall.

The *Manifesto* proposed to offer citizens in European inflation-prone countries the choice of an alternative currency of superior quality to that of their national money. More

[5] Marjolin (1986)
[6] McDougall *et al.* (1977)
[7] Basevi *et al.* (1976), (1977)
[8] Basevi *et al.* (1975)

precisely, the constant purchasing power of the new unit – “the Europa” – was to be guaranteed jointly by the EEC authorities through their readiness to exchange the new unit at an appreciating exchange rate vis à vis the national currencies to reflect superior inflation performance as measured by national consumer prices indices. This could have put considerable pressure of high-inflation countries – whereas those who already issued better-quality currencies could have maintained most of their currency domains. The elegance of the proposal was that it appeared to require only one big decision – that of setting up the system and defining the rules of exchange – with the impact being left to be determined by the choices of the individual economic agents. It was a proposal to strengthen market mechanisms in the process of monetary integration and disinflation relative to a heavily politicised system for which most officials have a preference.

You may wonder why I spend time of this idea today. Politically the project was a non-starter; governments don't take decisions that imply a jump into the dark. I do so mainly for the reason that it brings out the schizophrenic state of mind of those who like myself had a strong sympathy for achieving simultaneously monetary unification in Europe *and* very low and stable inflation, the core achievement of EMU two and a half decades later. The *Manifesto* was a stark expression of the view that the former objective should help the realisation of the latter – and, more fundamentally, that low and stable inflation is a pre-requisite for making monetary unification worthwhile.

Could even this strong variant of the so-called parallel currency approach have had the intended effect of replacing any significant part of nationally-issued monies in Europe? Experience with dollarization in Latin America and the penetration of the Deutschemark in some countries in the Balkans suggest that there is heavy inertia in monetary habits even under high inflation. A direct commitment by national authorities to the penetration of the new unit might have made a difference; on the other hand the *Manifesto* proposed such a complex process of conversion that even to-day's refined financial markets would have had difficulties in developing hedging instruments based on the unit. Whatever the intellectual merits of the idea, one weakness was evident: the scheme was designed to advance the transition towards a single currency, but it said nothing about how to manage the latter thereafter. Once the new unit had replaced national currencies, one would be faced with the problem of managing a single European currency so as to continue to assure its constant purchasing power. A supply rule would have to replace the conversion rules of the transition.

The idea of using a currency parallel to the national ones to advance monetary integration survived for more than a decade from the late 1970s onwards. The European Currency Unit (ECU) had found a niche in securities markets and in the accounts of some European institutions, but as an average of a number of currencies it posed little threat to national monetary domains. The UK government briefly revived the idea of currency competition in 1989 shortly before the EMU negotiations, in the shape of a proposal for a “hard ECU”. While simpler than the *Manifesto*'s “Europa” it was seen, maybe not fully justified, mainly as a diversion coming from a country not anxious to see a single currency materialize.

Anyway, by that time a government-managed approach had been chosen and the introduction of a modest market-based element in the form of a parallel currency could not have added much to it.

But let me return to reality. The one legacy of the first EMU project was the so-called currency snake, or joint float, of some EEC currencies which had come into existence in 1972. The snake suffered early defections by the United Kingdom and Italy, and France was an intermittent participant. The arrangement became an enlarged Deutschemark zone with only the smaller Benelux and Nordic currencies in it. Nevertheless, the importance of its survival through the 1970s must not be underestimated. The grid of bilateral parities provided clear rules for the short term and was managed in a fairly benevolent way by the Bundesbank. It provided periods of exchange-rate stability that contrasted favourably with the experience of the currencies that were still individually floating; if anything there was an excessive reluctance to allow exchange rates to move on the part of the smaller participants. But several efforts to bring the three major European currencies of France, Italy and the United Kingdom into a softer variant of exchange-rate management than the snake failed[9].

Why then did the creation of the European Monetary System (EMS) the take off in 1978? The force of the personalities of the two initiators, German Chancellor Helmut Schmidt and French President Valery Giscard d'Estaing – and the mutual confidence between the two – is often singled out. Indeed, it turned out to be a unique event to have as leaders of Germany and France two men who combined a European ambition with the technical competence to see how its economic dimension could be advanced. But there were objective economic circumstances as well: Germany was tired of being in the frontline of global economic debates, asking her to become more of a locomotive in the global economy in the style of the 1978 Bonn Economic Summit. German labour unions and industry were also unhappy with the degree of exchange-rate flexibility experienced in the 1970s: when the DEM was only tied down by links to smaller currencies, it fluctuated quite widely in effective-rate terms. As for France, a more stability-oriented policy after the departure of Prime Minister Jacques Chirac in 1976 had produced initial results that needed more international anchoring. France presented the future system as more symmetric than the DEM-led snake, symbolised by having the average of the participating currencies, the ECU, as its central element. Such a change was technically possible, but unnecessarily complicated – and it would have sent a signal in conflict with what was to become the important rationale for the EMS: convergence towards the best behaviour with respect to inflation rather than the average. This French twist therefore became largely cosmetic.

Was the EMS, in addition to being a practical arrangement, also – in contrast to Marjolin's verdict – a step towards EMU? In retrospect, it was clearly an indispensable step by significantly widening the group of countries prepared to regard their exchange rates as a matter of common concern for them and their partners. But the limitations were also

[9] For a brief overview of these efforts, see Gros and Thygesen (1998), Ch. 2

obvious. On the German side this showed up in the ability of the Bundesbank to extract from the German government in December 1978 a promise that foreign–exchange interventions in the EMS would cease to be mandatory if they endangered domestic price stability in Germany. This so called "Emminger Letter" was a clear pointer – though at the time not much publicised – to the priority given by Germany to price stability over exchange-rate stability.

The EMS was initially meant to develop into a second stage with a common European Monetary Fund to manage the consolidated credit mechanisms from the ultra–short to the longer–term balance-of-payments support. The two founders of the EMS did not have a very precise sense of the separation of the respective tasks of the monetary and the political authorities; short-term credits arising from mandatory foreign-exchange interventions, particularly when the rules are as clear as in the EMS, can safely be left to central banks, whereas longer-term lending for balance-of-payments adjustment require political decisions and some form of conditionality. The mixing of both functions in one institution made strong opposition from the emerging significant group of advocates of central bank independence inevitable[10]. The prospect of a regional support mechanism beyond what was strictly necessary for the functioning of the EMS also attracted criticism from the IMF for much the same reason as the plans for an Asian Monetary Fund were to do a couple of decades later: regional schemes were seen as undermining global monitoring and conditionality. Anyway, the plans for the EMF were quietly shelved in 1981 and the two EMS founders were soon to lose political office.

Having had the privilege a few years later to participate in the Committee for Monetary Union in Europe chaired by Helmut Schmidt and Valery Giscard d'Estaing leaves me with the impression that, had international circumstances and the domestic political situation in their respective countries permitted it, we could have seen a push for a somewhat different model of the EMU than the one of today – with emphasis on stronger links between the political and the monetary authorities. The resistance to such a project would have been considerable and it would have been unlikely to survive. These issues show up in the controversies about fiscal rules and foreign-exchange intervention in the current context to which I return.

Anyway, EMU was not on the agenda in the early years of the EMS. All energy had to be focused on preventing the system from breaking down – as it very nearly did in 1982-83. Policy divergence between France and Germany flared up with the arrival of President Mitterrand, and a shift in the US policy mix towards tight monetary and boldly expansionary fiscal policies in the first Reagan Administration posed another challenge to European policy makers: How to respond with a mixture of depreciation and defensively higher interest rates? A fragmented Europe was ill placed to respond to these policy shocks and political tensions ran high.

[10] See notably Pöhl (1989)

Despite all these fragilities there was in this period rapidly growing interest and encouragement from academics and officials outside Europe in the EMS. Robert Triffin had returned to his native Belgium from Yale and his former student Peter Kenen, along with Rudi Dornbusch, Alexander Swoboda and John Williamson, all took a keen interest in the workings and the likely impact of the emerging exchange-rate system. Due to my part-time position as a consultant to Danmarks Nationalbank I was better informed than most academics about the EMS, so I was invited by Triffin to help organise a series of four seminars in the 1979-81 period, all leading to publications. There were also presentations at the IMF and the Federal Reserve Board where the tone was more critical.

The shift in French economic policy over 1982-83 back towards more prudent macroeconomic policies made a qualitative change in the EMS possible. The key concept after March 1983 became closer convergence in inflation rates towards the lower levels of the best performers, notably Germany – "competitive disinflation" to use the term of some French policy makers. The EMS participants pursued this new line of policy at different speeds, particularly with respect to budgetary consolidation – Italy more slowly than France, and some small economies, Denmark and the Netherlands, the fastest – but an important common effort was visible. Targeting German inflation was becoming at the same time becoming more demanding – it touched zero in 1986-87 as the oil price fell.

In 1985 the incoming Delors Commission, following up on critical studies by academic economists and the European Round Table of Industrialists of the growth impediments in the form of fragmented markets and inadequate competition, launched its ambitious programme for the Single Internal Market. This very detailed agenda which soon developed considerable political momentum involved the passage of app. 300 detailed pieces of legislation. It made clear that Europe aimed for a degree of integration of its product markets beyond a well functioning free trade area – or for that matter some Federal countries such as the United States. US sub-national governments retain some scope for internal trade and investment discrimination which the European Single Market tries to eliminate. Could this ambitious agenda be taken seriously if significant change in the most significant relative prices in Europe – intra-area exchange rates – could still be allowed? Hardly.

Jacques Delors saw this linkage and tried to put monetary union already on the agenda of the Intergovernmental Conference (IGC) called to discuss how to implement the Single Market. He was told firmly by several governments that this was a bridge too far, requiring negotiations in a subsequent and carefully prepared IGC; but a reference to EMU as an objective was inserted into the Single Act of 1986.

An even more decisive argument supporting this objective was inherent in the Single Market. The latter also had the aim of decisively advancing financial integration by finally respecting another of the aims of the Rome Treaty: freedom for capital movements. That step still – far from being taken in the mid-1980s and extremely radical from the perspective of the first EMU project of 1970 – would make the fixed-but-adjustable system of exchange rates of the EMS more unstable, probably only sustainable through a degree of adherence to cooperative rules unlikely to develop. Continuing with the EMS for an extended period as governments removed the residual capital controls – which had proved helpful in critical situations in the past in gaining some time for more basic adjustment – no longer seemed a realistic option, a view most eloquently formulated by Padoa-Schioppa[11].

My own conviction that EMU was *the* alternative realistic option goes back to the late summer of 1985. The Centre for European Policy Studies (CEPS) in Brussels with which I had been associated since its start in 1981 was seeking funding from central banks and the private sector for a working group on how monetary cooperation could be further developed in the EMS and beyond. The first and crucial visit was to be Bundesbank where President Pöhl showed a – to me – surprising receptiveness to the argument that when other participants in the EMS were beginning to show performance with respect to inflation and interest rates broadly comparable to that of Germany – still an uncertain prospect by then – they could not be expected to continue to simply accept German leadership of the EMS, however useful that might have seemed in the past. We obtained the funding and Pöhl did our group the service of suggesting that one of the more conservative members of the Bundesbank Council could join our group. So we had a good rehearsal of what it would take to overcome German scepticism about moving beyond the EMS – and it did not seem impossible.

Another experience gave me added confidence that EMU would happen. In 1986 the two EMS founders launched the Committee for Monetary Union in Europe with politicians and industrialists as members. You may wonder what I had to do in such group, but when I organised for the representatives of Schmidt and Giscard to invite two senior Danish politicians, not then in government, to join, neither would accept, fearing that they might be involved in taking positions on European issues which they found unduly adventurous. So I ended up as a member myself – at the cost to the Committee of influence in Denmark. The conviction of most of the members that EMU was becoming highly desirable, and the high estimates put by the industrialists to the likely cost savings of moving to a single currency for major European companies were useful antidotes to the analysis of most of professional economists.

The CEPS group met on a number of occasions in 1986-87 and had excellent input from both its academic and official members. At CEPS we had the good fortune of recruiting Daniel Gros as Rapporteur for the Group, and I would like to use this opportunity to express my warm thanks to Daniel for close and, in his case, very efficient collaboration in this and several later stages. In retrospect, the outcome was not that sensational: a fair review of strengths and weaknesses of the EMS, since much elaborated in Gros and Thygesen (1992 and 98), and suggestions for moving towards a European System of Central Banks with shared responsibilities for monetary policy between the national and European levels. Some use was made of the analogy to the evolution of the Federal

[11] Giavazzi, Micossi and Miller (eds.) (1988)

Reserve System towards more centralisation and collective decision-making, but the report was less than fully explicit on the time horizon for moving to a single currency[12].

The report generally had a positive reception when Daniel and I presented it in central banks and other fora in the early 1988, just as the debate on the creation of a European System of Central Banks was picking up, following initiatives by the French and Italian Finance Ministers and the German responses which were less critical than expected[13]. We had particularly exhaustive sessions with Bundesbank Council and with Dr. Hans Tietmeyer, then of the German Ministry of Finance. The German reluctance to moving well beyond the EMS was clearly weakening – and the decision in ECOFIN in June 1988 to lift all remaining capital controls by 1990 removed a major argument for resisting. Once the EMS partners had taken the plunge of exposing themselves more fully to market forces, imposing more discipline and caution in monetary policy, there was a case for developing the joint element in policy decisions further.

So it was no accident that the Delors Committee on EMU was set up by the European Council shortly after the ECOFIN decision. In the end a mixed formula for its composition was chosen: the then 12 national central bank governors (as personal representatives of their Prime Ministers), three independent experts and two members of the European Commission – with Jacques Delors taking the chair. Crucially, the Committee was served by two outstanding Secretaries, Gunter Baer and Tommasso Padoa-Schioppa. Not only did they prepare succinct drafts; they had also argued the main controversies out amongst themselves which greatly eased the adoption of the text.

As to the three independents there could be no surprise as to two of them: Alexandre Lamfalussy, equally respected in the academic and central banking communities, was then General Manager of the Bank of International Settlements in Basel which hosted the monthly meetings of the Committee of Governors, while Miguel Boyer, past Finance Minister of the Spanish Socialist government, provided a strong link to the Spanish Presidency during which the group's report was to be presented. Why I was nominated, remained more of a mystery, though if one wanted an academic I was at the time one of the relatively few who had written extensively about the subject. Among the speculations I liked best a comment by the correspondent of *Le Monde* in Brussels "All we can say is that he is not there to slow things down". It was not because of my nationality; when the Danish representatives returned from the European Council they were severely criticised in the European Committee in our Parliament for not having done more to stop the set-up of the Delors Committee and my nomination to it – "he is even in favour of the project", the critics argued. The Prime Minister responded rather defensively that he did not know about it – and that it was not his idea anyway.

[12] Gros and Thygesen (1988)

[13] It has been a regular feature that the main ideas for advancing Europe's monetary unification have come from Italy and France (in that order). These ideas have then had to be tested carefully by cautious German (and Dutch) officials prior to implementation.

The Delors Committee was a unique experience for me. The formality of the briefings that some governors brought to the meetings could not hide the close mutual understanding and trust between the national central banks governors, nurtured through monthly meetings over their usually many years of office. The Committee was not asked to express an opinion on whether EMU was desirable or not, only to answer the question put by governments: Assume we want to achieve EMU; what are then the means and the concrete stages that could lead us there? This was still a difficult question. The central bankers were broadly comfortable with the EMS as it existed at the time and felt they could handle the relationships to both their colleagues and their respective governments within it. They were reluctant through positive comments on EMU to implicitly criticise the system they would be responsible for some time yet.

They were, above all, concerned about how governments would react to EMU – more likely by asserting more aggressively authority over their national budgetary policies in the comfortable framework without interest rate hikes and the risk of currency crises, than prudently, as they perceived that the ultimate recourse to inflation and devaluation would be ruled out. Some consoled themselves that credit risk would still be attached to national debt issue and would substitute to some extent for the disappearing currency risk. Professor Lamfalussy and his associates at the BIS reminded us of the limited extent to which this was happening inside large federations such as Canada and Australia where the differences in debt levels and their dynamics, as well as in regional *per capita* incomes, were as large (or larger) as within Europe. The maximum spreads within credible monetary unions were well within 100 basis points and the central bank governors did not take long to conclude that such spreads would not deter the governments they knew from overly expansionary policies. The late 1980s was a period in which relatively rapid economic growth did not lead to any major reduction of budget deficits –procyclical budgetary policies were pursued and governments were in denial of any need to consolidate. Although this experience of procyclical policies had not become as evident as it now appears it was sufficiently clearly perceived to prompt the recommendations in the Delors Report of "binding guidelines" in the form of upper limits to budget deficits. At bottom, the central bankers felt some resentment that their political counterparts were so keen on merging national central banks in Europe while devoting little attention to what such a step would require of themselves.

The Report[14] chose to focus on the final stage of EMU and the institutional features of the European System of Central Banks (ESCB) rather than on the stages leading to EMU. The main features of the joint monetary policy were to be a primary objective of price stability in the medium term and independence of the members of the governing bodies of the ESCB of both national and European political authorities. This was not surprising in view of the preference of Germany for these characteristics and the perception that the German policy experience had been superior to those of others over the preceding decade and a half. The discussion of the features of the future European central banking institution also

[14] Delors *et al.* (1989)

revealed, however, that the governors had taken to heart the thrust of macroeconomic literature of the 1970's and 80s on the need for time consistency in economic policy-making as well as on the credibility of policy and the extent to which that could temporarily be borrowed from the Bundesbank through a firm DEM-peg.

The main weakness of the Delors Report lay in the relative brevity and vagueness in the description of stages one and two on the road to full EMU (stage three). There was no transfer of any authority to the European level envisaged prior to the entry to stage three; stage one, to start on 1 July 1990 marked no change in existing practice, while stage two was to be characterised mainly by detailed preparations for full EMU. But could stage three start with no prior operational experience? Like some other members of the Committee I thought vagueness on the transition would undermine the process of moving towards EMU. But I was too much rooted in the more gradualist tradition which had marked the CEPS Report of 1988 and my own writings on the subject. And the more radical and simple approach advocated by the majority of members in the end proved justified: the clear design of the final stage exerted a pull on prospective candidates for full EMU which substituted for a well-designed transition path. The final stage was telescoped into the present, so sometimes "la fuite en avant" – the much maligned practice in European integration consisting of presenting a detailed outline of a still distant but reassuring future in the hope that this facilities getting there – can work.

The vagueness of the transitional provisions was a direct consequence of the German insistence on the indivisibility of authority for monetary policy. Financial markets would be confused by any uncertainty as to who was responsible for any particular decision, so better leave them all in national hands until they could be fully centralised. So ran the argument, but it seemed a risky strategy. If there could be no transfer of decision-making authority in the transition to EMU, could there not be some build-up of operational experience in the core institution of the new system, the European Central Bank, acting as an agent for the participating national central banks? Professor Lamfalussy had some good ideas along these lines, but they, like the idea of partial transfers of authority, met with little favour in the Committee.

The surprising thing was in the end not so much that the central bankers and other members were able to produce an outline of the main features of EMU that looked workable, but that the proposals rapidly developed political momentum. Some governments, notably that of Mrs. Thatcher, had not expected a unanimous report from the Delors Committee; they expected the President of the Bundesbank would either refuse to sign it, or raise the entry conditions to such a level that others would give up. But the concessions to the German monetary policy strategy had been quite sufficient to make such outcomes unlikely. Although the Bundesbank was going to lose its leadership role in the EMS, the prospect of obtaining commitments to a stability-oriented monetary policy throughout the participating countries broadly compensated for that. To other central bankers signing was more obvious; for the non-German central banks the process offered earlier transition to independence than would otherwise have been possible.

The Report was endorsed as a working basis in the European Council in Madrid and after a brief review of the proposals by the national Finance Ministries in the following months the ground had been sufficiently prepared for calling an Intergovernmental Conference to discuss EMU. This procedure had – due to the skilful drafting by Wim Duisenberg - been outlined at the end of the Delors Report. There is therefore every indication that an IGC would have been convened not too long thereafter, although German public opinion was showing some reticence. The dramatic political events in Central and Eastern Europe, with the fall of the Berlin Wall in November 1989 as a climax, had been totally unforeseen. These events advanced the calling of the IGC by increasing the pressure on Germany to start in return for the support of her partners for unification and the concession to Germany of convening a parallel conference on political union.

The Maastricht Treaty, finalised in the course of 1991, followed in most important respects quite closely the proposals in the Delors Report. The central bank governors submitted Draft Statutes for the ESCB with a number of useful additional details and the essential advance of the acceptance of the "one-man-one-vote" principle in the Governing Council of the new central bank - the only application of this principle in the European institutions, made possible by the clear mandate for the joint monetary policy. A timetable for stages one and two and the set-up of a special institution from the start of stage two – the European Monetary Institute (EMI) – to prepare in detail for the final stage was agreed. Alexandre Lamfalussy was later put in charge of leading the EMI, making sure that nothing would have to be improvised at the start of the final stage. But one essential weakness in the transition remained.

The Delors Report had been extremely cautious about how to move from one stage to the next; in principle all countries should be ready. This would in practice present no problems prior to the start of stage three, but that transition might well be blocked indefinitely by the slowest member(s). The draft of the Maastricht Treaty prepared by the Dutch Presidency stipulated that stage three could start on 1 July 1997 if a majority of member states were ready and it was deemed “appropriate” to enter; if not, a similar effort to start should be made at 2-year intervals thereafter. This was an open-ended procedure that might have lasted indefinitely; the pressure on prospective candidates to get ready soon would certainly diminish. The attraction of the final stage would be undermined by the absence of a firm timetable.

In a meeting of the Schmidt-Giscard Committee in November 1991 this prospect caused alarm and it was decided to make a last-ditch effort to formulate a procedure that would provide a degree of automaticity in the transition. High-powered members from the three largest continental countries and the Netherlands and Belgium pushed this idea with their respective governments. The proposal surfaced through the Italian government, but with crucial support from the political leaders of Germany and France. Hence the final text of the Maastricht Treaty stipulates (Art. 109 j 4) that, if a majority of states were not economically ready, i.e. did not fulfil the convergence criteria, full EMU would start automatically on 1 January 1999 with whatever number of states met the criteria. Prescription had prevailed over pragmatism.

This turned out to be a crucial provision; without it EMU would probably still be on the drawing board. I recall it as a critical moment also in Denmark's relations to EMU. I was in no position to influence decision-makers here; when I told officials in Copenhagen about the efforts to put the automaticity provision into the Treaty the reaction was that Denmark would have to insist on the right to opt into stage three only later, since there had been no political preparations for the eventuality of this kind of automatic entry. This reservation subsequently made it possible for Denmark to decide after the Maastricht Treaty had failed in a referendum that we wanted to exercise the option not to join prematurely, i.e. already by 1992-93. This was the so-called "National Compromise" – between those who did not want EMU to happen and those who thought it was unlikely to happen and hence costless to opt out of. Time has undermined both of these positions, but Denmark has fortunately minimised the costs of staying out by pursuing a particularly orthodox version of the policies required in EMU.

There was to be a long way from the signing of the EMU Treaty to realisation. The ratification process ran into major difficulties, not only in Denmark, but also in France, Germany and Britain. On top of that, and partly as a consequence, the EMS lived through major crises in 1992-93.

Political leaders had moved well beyond public opinion in their push for EMU. My participation in campaigns prior to the Danish and French referenda provided striking illustrations of the extent to which governments had difficulties in communicating the message of EMU to their electorate. In Denmark voters were not very interested in the Treaty, may be understandably since we had already at Maastricht obtained a reservation enabling us to defer a decision on entry. Just to be sure a majority of voters nevertheless voted the Treaty down. In France the referendum was narrowly won, but the arguments used by the government, and particularly by President Mitterrand, bore little relationship to the provisions of the Treaty. The emphasis in the campaign was heavily on reducing the German influence in monetary policy with little recognition of the constructive role that influence had played in the past, and on visions for economic governance in EMU which still have not been developed and probably never will be. Central bank independence did not come naturally to French policy-makers.

The first wave of EMS crises came in September 1992 shortly before the French referendum. At this time coordination efforts within the EMS had visibly reached their limits. German unification with overheating and massive demands on public finances had obliged the Bundesbank to raise interest rates to levels that partner countries found objectionable as they were entering an economic slowdown. Requests for lower German rates were met by not unreasonable German requests for devaluations of a few partner currencies. When that was finally offered, initially only from the Italian side, it was too little, too late. Speculative attacks forced the lira and sterling off their rates and pushed the Iberian currencies into significant realignments. After almost one year of turbulence, affecting also occasionally currencies with sound fundamentals, the ECOFIN Council on 1 August 1993 widened the margins in the bilateral grid to ±15% while maintaining the central rates themselves.

Interpretations of the significance of this step vary widely. Some, notably the British, saw the partial suspension of the EMS as a definite sign that the whole EMU project had now become unfeasible. If the participants could not even sustain a fairly loose system, how could they ever hope to get to full EMU with its far more demanding constraints, was the question heard often – and not only in Britain where Prime Minister John Major began to describe the EMU project as a “rain dance”. The role of the EMS as a stepping stone to EMU had become so well established in the perception of most observers that there was a sense of loss of direction when it was suddenly undermined.

But there is another interpretation. The morning after the widening of margins I had a call from Daniel Gros who said: I am writing an article under the title “The EMS is dead, long live EMU” – do you want to be in? I was not quite there yet, but in retrospect the inference, developed most authoritatively by Padoa-Schioppa[15], is surely correct: the speculative attacks had made it necessary for the EMS participants to step back a moment to demonstrate that the exchange-rate structure of the EMS was a durable one, not only underpinned by rules of intervention, but also by underlying convergence of inflation rates and increasing real economic cohesion. Running a fixed-but-adjustable exchange rate system had become an impediment to achieving EMU, because differences in cyclical position and responses to them were blown out of proportion by financial markets.

It may be useful to reflect on how the divergence of German unification might have unfolded if EMU had already been in existence from say, 1991. With monetary policy determined by the average economic conditions throughout EMU, interest rates would have been lower everywhere, but particularly outside Germany, where, in the EMS they had to incorporate a currency risk premium. Inflation would probably have been a bit higher and the slowdown of output in the recession of the early 1990 less pronounced. Whether EMU would have been the optimal regime for handling a major asymmetric shock such as German unification remains an open issue, but it would have been superior to the relatively rigid EMS which had developed by then.

The crucial test of the willingness to proceed towards EMU came in the first year after the widening of margins. Would participants make use of the higher degree of exchange-rate flexibility to individually pursue more aggressive policies in order to escape faster from recession? This line was recommended by the IMF and by many academic economists. Fortunately, the wider margins were not used much used. Budget consolidation began and accelerated in 1995-97.

Over this period it became clear that participation in an EMU that could now only start in 1999 might not be limited to the at most six countries that were initially singled out as the likely maximum number: Germany, France, the three Benelux countries (though with some

[15] Padoa-Schioppa (1994)

misgivings about Belgium due to her record-high debt ratio) and Austria. Finland was recovering fast from deep recession and Ireland had become by far the best performing economy of Europe. Most remarkably, the two Iberian countries and Italy decided in 1996 to make a major effort to join the first group. They had the most at stake, since convergence of interest rates towards the benchmarks in low-inflation national markets would confer great benefits and provide a major contribution to the budgetary consolidation required for entry into full EMU. This was particularly true for Italy with the highest debt ratio and the largest interest-rate differential. Yet Italy remained the most hesitant; on becoming Prime Minister Romano Prodi initially said he would not want to carry a dying Italian economy into EMU. He was persuaded by then Finance Minister Ciampi and other advisers to avoid being left behind as the only country not making a major effort to join. In fact the Italian economy was in much better shape a couple of years later, mostly as a result of the "sacrifices" made in preparation for EMU, including the so-called Euro tax, a politically courageous initiative which probably could not have been taken in any other European country.

The likelihood of wider participation evoked mixed reactions. While the French Socialists saw participation by the three "Club Med" countries as an essential counterweight to supposedly more conservative policy-making in most other countries, the German government proposed the Stability and Growth Pact (SGP) which put more teeth into the Excessive Deficit Procedure of the Maastricht Treaty - an open-ended procedure with financial sanctions against clearly divergent behaviour at the end, but with escape clauses and a long time horizon for completing the process. The three main contributions of the SGP were to provide a tight timetable for assessing budgetary behaviour, a rigorous definition of the "exceptional" circumstances that would remove the threat of sanctions, and to introduce the cyclically-adjusted budget balance as a monitoring device. A fourth element proposed by Germany was only approximately met: automaticity in applying the sanctions procedures. The Germans consoled themselves and their concerned public opinion that their partners had virtually pre-committed themselves to voting in favour of sanctions once they were presented with a clear case of violation. We now know they overinterpreted these provisions. But it is important to recall that the SGP was generally welcomed; most governments recognised the need for a set of fiscal rules that was more than a trigger for discussion, in short more rules than procedure.

In the end EMU came into existence with no less than 11 participants in the first group on the basis of economic performance in 1997. The European Central Bank opened in June 1998 with a highly competent Board under the presidency of Wim Duisenberg and an agenda that had been meticulously prepared by the EMI under the leadership of Alexandre Lamfalussy since the beginning of 1994. The ECB Governing Council clarified its monetary strategy in October, relying, not surprisingly, on a mixture of monetary and other guides to future inflation and the Council chose as its operational definition of price stability in the medium-term an inflation rate (of harmonised consumer prices) of less than 2%. Both of these features were largely anticipated and in line with what was considered best practice at that time, so they did not create much controversy. Interest rates converged towards the low levels in Germany in the run up to 1 January 1999 when the participating currencies were locked irreversibly to the Euro.

EMU after six years – was it worth the trouble?

Let me address the question first, because an answer to that has to sum up the benefits and the costs of the long process leading up to 1999. It will already be evident from my lengthy account that I regard EMU and the single currency as significant progress not only from the systemic viewpoint of monetary integration but also from the perspective of individual participants. Complaints have simply been rare, because there were no major costs in terms of output losses in the run up to EMU.

Some of the countries that experienced particularly rapid convergence of interest rates to low levels – Italy, Spain, Portugal, later Greece – have since complained that this positive disturbance overwhelmed their policy-makers in the next few years, creating temporary overheating and that, in general, the behaviour of their firms and unions had not fully adjusted to the tougher environment of a monetary union where the escape route of inflation and depreciation had been blocked. It is obvious that they should have consolidated their public finances anyway – and that they could have done even more. A significant part of German opinion still feels that the combination of the fiscal burdens of unification and of the appreciation of the DEM over the 6-7 years prior to EMU hung a millstone round the neck of the German economy in the new regime. However, the relatively good external performance of Germany during the recent period suggests that the problems are primarily domestic. At the same time the imbalances inside Germany which the massive transfers to the East have tried to relieve could hardly have been addressed better in a regime of some exchange-rate flexibility and the (slightly) lower interest rates that specific German conditions would then have indicated.

Was EMU really necessary for achieving low and stable inflation? Do not some European countries with the experience of individually floating currencies suggest that inflation targeting can provide results fully comparable to those of the EMU participants? It is undeniable that Sweden and the United Kingdom have developed well-functioning policy frameworks and stable low inflation outside EMU. For both currencies there has been some volatility and significant longer-run swings in their Euro exchange rate while the difference in behaviour of effective exchange rates is modest. But would we have seen as determined efforts to develop a monetary framework without the competition from the process of monetary unification in Europe? Both Sweden and the United Kingdom initially developed their inflation targeting as a second best, after they had been ejected from the EMS by market pressures and, as they refined their systems, they were under pressure to be at least as determined and clear as the framework that was emerging for the joint monetary policy in EMU. British Eurosceptic friends sometimes tell me that competition in monetary arrangements is a good thing and that the EMU participants should consider themselves lucky to have high-quality competition from the UK monetary framework. But surely competitive forces working in the opposite direction have been at least as powerful. The tail still does not wag the dog.

The EMU participants are familiar with competition among monetary frameworks and policies. The EMS was all about that – and as a result the participants chose to move to EMU because they found that they could not preserve the degree of nominal exchange-rate stability vis-à-vis other European economies that they desired, since moderate differences in economic policy were interpreted in an exaggerated way in financial markets. If one tries to imagine the counterfactual scenario that EMU had not had the automaticity provision for its start on 1 January 1999 already referred to, but had been postponed to an "appropriate" time, it seems likely that we would still have the national currencies linked together by the wider-margins EMS, known as ERM 2. Currency movements would have been substantial as financial markets reacted to such events as demonstrations against reforms in Germany, the announcement (though not yet implementation) of underfinanced tax cuts in Italy and major revisions to public sector finances in Portugal and Greece – as well as to national debates on the appropriateness of a largely common monetary policy. One must not overlook the usefulness of having put all these diversions behind.

Some critics of EMU, not least among British and American economists felt that the prolonged effort of monetary unification over most of the 1990s was becoming a distraction. As on some other topics, possibly the sharpest formulation of this position is due to Larry Summers, then Deputy Treasury Secretary who said (in 1997) that Europe faced the paradox that

> "EMU's success depends on finding strategies to address these challenges (of slow growth of output and employment, NT) but that EMU itself does not directly address them. If the process surrounding monetary union distracts Europe from some of its economic and structural challenges, then it will carry an opportunity cost in terms of economic growth foregone."[16]

This analysis has some of truth in it, but it still seems to me unfair to the European efforts of the 1990s. Moving towards a more growth-friendly policy mix, combining low interest rates and budgetary consolidation was a major achievement of this period – as was the largely parallel effort in the United States during the Clinton era. The US economy responded more vigorously to the more growth-fiendly macroeconomic policy mix without having to add in structural reforms to advance labour market flexibility, privatisation and deregulation and improve the financing of innovation – the challenges that Summers had in mind for Europe. All these elements were largely in place in the United States; in Europe they only began to be clearly identified through several different policy "processes" launched in the course of the 1990s. Since these policies remain largely a national responsibility in the present EU – and will continue in that mode once the Draft

[16] Summers (1997)

Constitutional Treaty is ratified – it takes time to implement policies in a way that significantly affects aggregate behaviour in the Euro area.

There is a message in the analysis of Summers of greater relevance today than 7-8 years ago. We can no longer afford to let discussions about EMU itself distract the policy debate. Monetary policy more narrowly may at best help to narrow the fluctuations of output around its trend rate of growth (potential output), but it cannot hope to have any impact directly on the latter. Both actual and potential outputs have slowed in recent years, settling down to a rate of growth of less than 2% annually in the last few years. Therefore the slow growth in output since 2001 has not opened up a major output gap, and hence considerable scope for macroeconomic stimulus. Many economists are puzzled by this sluggishness; some attribute it to over-conservative measurement of potential output, others see a spill-over from slow growth of demand to the economy's potential; the longer the duration of high unemployment and the share of long-term unemployment therein, the more difficult it is to maintain growth in the human capital embodied in the labour force.

While this analysis of so-called "persistence" in Europe labour markets by Blanchard and co-authors no doubt has a point, I wonder whether the reverse causation – from the growth of potential output to actual output – is not more significant. It can be based on the permanent-income model of consumption and saving; if perceptions of the likely course of income over, say, the next decade are lowered relative to the past consumption today will be dampened significantly. In the late 1990s the assumption generally accepted was that the Euro area economies in the aggregate had a potential annual growth rate of about 3%. But since 2001 the actual growth rate has averaged little more than 1%. If that is seen as continuing a bit longer, it is not surprising that consumption is sluggish and disappointing. This structural, or supply-based, explanation of weak consumer demand – obviously with an impact on investment – in Europe is the core of the analysis in the recent reports from the CEPS Macroeconomic Policy Group[17]. The policy implication is that the need in the Euro area is not for more macroeconomic stimuli, but for structural reforms that can visibly raise the speed limit of the participating economies – by increasing participation rates in the labour market and by raising productivity.

The contrast to the United States is once more illuminating. From about 1995 both output per hour worked and so-called total factor productivity in the US economy shifted up by nearly one percentage point. This shift was correctly – and to his great credit – identified early by Chairman Greenspan and his staff as having widened the scope for expansionary monetary policy. Demand rose sharply over the following five years, indeed even faster than simply, as households and firms borrowed heavily on the prospect of higher permanent income, exceeding the productive capacity of the US economy over the subsequent boom years. Our Director of Country Studies at the OECD, Val Koromzay, has coined an appropriate term for these interactions between longer-term supply and the shorter-term demand: Super-Say's Law. As economists will recall, Jean-Baptiste Say's main legacy to macroeconomic theory is that an increase in supply creates its own demand.

[17] See in particular Gros *et al.* (2003), Ch. 1

Super-Say's Law states that a positive supply shock such as that observed to US productivity from 1995 temporarily creates excess demand; as economic agents telescope their future expected earnings into present spending even the rapidly rising productive capacity is not sufficient to meet demand.

While a less clear example in the opposite direction, the slowdown in both potential and actual output in the Euro area since 2001 can also usefully be thought of in this framework. The US economy had a sharp cyclical slowdown after the long boom up to 2000, but productivity growth has, at least until now, survived broadly intact. In Europe there has been a weaker cyclical slowdown, but a further and apparently more significant depressing effect on demand from an increasingly visible and durable slowdown in the growth of productive capacity. Permanent income has fallen sufficiently to open up a negative output gap even with the slow-down in potential output growth.

I go into this important issue, even though I started out arguing the monetary policy cannot hope to have an impact on the underlying or potential growth rate and therefore should not take the blame for unsatisfactory performance. Some European policy-makers and economists still seem to have some hope that it could and the US experience apparently gives them a benchmark for criticising the joint monetary policy conducted by the ECB. Why not be more activist and push the use of potential output to the full? Quite apart from the fact that the Fed has a different and broader mandate for monetary policy than the ECB, Chairman Greenspan has, as already noted, had a more responsive economy to work with[18]. It is not that the ECB has not been looking eagerly for signs of a pick-up in productivity growth, or just evidence of a stop to its downward trend, that could improve the output-inflation trade-off and hence create more scope for monetary expansion. Such signs have so far been insufficiently widespread to influence policy-making at the ECB. So Larry Summers was right to ask: when is the Euro area going to address the issues that are even more important than monetary unification? European policy-makers will respond that this is happening with the Lisbon Agenda, but so far the gap between the up-beat rhetorics and reality has in itself put the spotlight on the negative shock of recent years, amplifying its impact on demand. Discussing this more fully would, however, take me well beyond even today's broad topic.

As far as monetary policy is concerned more narrowly the EMU participants have had very much what was promised: a single currency with a record of price stability that we should not want much different. We are very close to 2% average inflation of harmonised consumer prices for the first six years and nearly all observations are in the 1-3% interval. There was initially some confusion among outsiders as to whether the target was well below 2%, but the comprehensive *Strategy Review* of May 2003 put that to rest by clarifying that the target was ideally just below 2%. It remains a mystery to me why the ECB continues to leave itself open to the sniping from financial journalists and non-Euro area central banks that the target is not symmetrical around 2% when it looks so much like

[18] In the so-called Euro 50 Group chaired by Edmond Alphandéry we have devoted some attention to comparisons between the Fed and the ECB.

that. The monetary pillar has been another source of criticism for lack of clarity of communication, but here again the *Strategy Review* helped. My own view, influenced by my CEPS colleague Thomas Mayer of Deutsche Bank, is that the ECB may well be groping usefully towards a more refined strategy than pure inflation targeting (or inflation expectations targeting, as is the more accurate term), and that the current, less prominent, role of the monetary pillar is a useful handle for that by extending the time horizon and permitting a closer look at elements of financial stability. There is, in my view appropriately, a less rejectionist view of the need to monitor risks to financial stability in general and the role of asset prices in particular than one finds in the Fed or in some of the inflation-targeting banks elsewhere[19].

At the more technical level one has to recognise how well the decision-making bodies seem to operate, the openness of the Euro system to interaction with outsiders, including academics and last, but arguably most impressively of all, the highly efficient introduction of Euro notes and coins nearly three years ago. A few words, on each of the first two of these points.

During the EMU discussion there were fears expressed that the ECB Governing Council would find it difficult to operate as a cohesive body. It has clearly become that and I find no hard evidence so far that its size or composition – with the six Executive Board members in a potentially worrisome position of a small minority in a Council of 18 – has significantly hampered or delayed decision-making. And we have no recent record at all of any public expression by a Council member of dissent. In short, the initial fears of excessive fragmentation in the Eurosystem seem to have been exaggerated. But I am concerned about the overload of members in the Council that will follow the entry of many new EU member states into EMU over the 2007-10 period. There should have been a lower cap on voting membership in the Council or, better, more delegation of decision-making to the Executive Board[20].

As regards openness my own limited experience as a member of the Academic Panel which prepares the quarterly hearings in the Economic and Monetary Affairs Committee of the European Parliament with the ECB President and as a regular participant in the annual conference of "ECB Watchers" in Frankfurt, convened by Axel Weber until he became part of the decision-making himself as President of the Bundesbank, leads me to believe that the whole Eurosystem has become very open to dialogue and by now explains its strategy and individual actions as well as its broad interested audience has the right to expect. The earlier criticism of ECB communication has died down; I always felt that this criticism was under the wrong heading as it tended to come primarily from those who disagreed with the policy while they understood it quite well. Let me now turn to the steps taken in the Maastricht Treaty to safeguard the focus of monetary policy on the maintenance of medium-term price stability.

---

[19] For a further discussion see Gros *et al.* (2003), Ch. 4
[20] This is argued i.a. in Gros *et al*. (2002), Ch. 3

Some additional challenges not yet resolved

When the Maastricht Treaty was negotiated efforts understandably focused on protecting the independence of the ECB, in part by constraining its own mandate, in part by removing as much as possible the risk that its freedom of manoeuvre would be undermined by other actors. I deal first with the two main examples of the latter: the fiscal rules designed to underpin EMU, and the weakness and ambiguity of the political authority in influencing the external value of the Euro. Both are now under strain and need some re-evaluation.

As already noted, the Excessive Deficit Procedure (EDP) was incorporated into the Maastricht Treaty to contain divergence in budgetary developments in individual participating countries. Although some long-term constraints are tighter in a monetary union as the ultimate escape route of inflation and devaluation out of a lack of sustainability of public finances, the “deficit bias”, inherent in the short-term horizon of policy-makers, is strengthened when a country enters EMU. So, when the market sanctions of higher national interest rates and pressures on the currency fade away, the Finance Ministers from partner countries who take over the main role in monitoring a country's public finances need a minimum of rules to exercise a peer review effectively. This remains the decisive argument against scrapping the "binding guidelines" to the ceiling which the Delors Report had advocated. If anything, the argument has strengthened since EMU started, since financial markets exercise even less discipline over public finances then anticipated. Instead of the 100 basis points that were envisaged in the Delors Committee discussion in the late 1980s, the current maximum differential is in the order of 20 basis points. Credit risk premia have barely - within the present range of national budgetary experience – taken over any of the role earlier assumed by currency risk. Financial markets have come to regard national debt issued by different countries in EMU and at different speeds – sometimes even with different credit ratings – as close substitutes. That is in itself a strong vote of confidence in EMU, but it does increase the risk of national fiscal behaviour which is in a medium-term perspective unsustainable.

What are the main criteria to be kept in mind in designing the minimal fiscal rule required in these comforting circumstances? The rule should be as unambiguous as possible to facilitate monitoring and ultimately enforcement. It should help national governments to prevent public finances from entering unsustainable territory, while leaving some room for stabilisation policy, primarily though the operation of automatic stabilisers which in most European countries are fairly strong relatively to elsewhere in the OECD area.

If these criteria are broadly acceptable, it is difficult to avoid the conclusion that a serious effort to embody them was made in the original design of the EDP. The 3% ceiling is, if anything, transparent and should be easy to monitor, even though revisions to figures have at times been painfully large. Indeed, recent experience has shown that it is very useful to have a well-defined numerical commitment, since that gives a handle on the national public accounts figures. It will never be possible to replicate in Eurostat the detailed knowledge of public accounts found in national Ministries of Finance, but with time one can surely do much better than until now in monitoring[21].

Basing the EDP on actual deficits will imply that insistence on the 3% rule has procyclical effects, if a country has not been prudent in building up a margin in good times well below the ceiling. This is the core of the problem that has emerged since 2002: should earlier somewhat procyclical expansionary policies now be paid for by procyclical policies in the opposite direction? The SGP already recommended monitoring movements in the cyclically-adjusted deficit and established the principle that countries should aim for balance or small surplus. Taken literally, this principle implies a much faster decline in the debt ratio than the original EDP, indeed convergence towards zero in the long run. Is this reasonable and, in particular, does it require individual differentiation with more lenient treatment of countries that have a debt ratio well below the reference value of 60% of GDP? It might, but such a modification would not soften the pressure on most of those presently in violation of the rules. Germany and France who have both been above 3% deficits in 2002-2004 have debt ratios well above 60% and rising, while Greece and Italy are still above 100%.

There is a more serious problem in basing the monitoring primarily on the cyclically-adjusted deficit. While analytically appealing, problems of transparency are compromised; cyclically-adjusted balances are much harder to measure. Governments remain accountable for their actual deficits, but they will continue to argue at great length about their structural deficits, even as a common methodology is emerging. Pressures to upgrade these more refined measures of imbalances may be abating anyway, as countries increasingly have to face up to the reality that most of their deficits are of a structural nature – 75-80% according to the latest estimates. This is just another way of saying that output gaps remains fairly modest, as already argued.

Assuming that one can measure correctly the cyclically-adjusted balance, is it over-ambitious to aim for it to be zero? For the short-term purpose of the cohesiveness of the Euro area it might be enough to direct this advice only to those with debt above the long-term norm. Although that is where the legitimacy for fiscal rules in EMU originated, these rules have in recent years taken on a clearer long-term dimension. Ideally, they should help to bolster long-term sustainability of public finances while giving some allowance for flexible responses to shorter-term disturbances, mainly, but not necessarily exclusively, through automatic stabilisers. It is a widespread public perception, encouraged by many political statements, that the rules have provided a straitjacket which has seriously jeopardised an effective stabilisation policy in the recent period. This seems a distorted view of reality; despite their apparent rigour of the rules they have been applied so flexibly that longer-run sustainability has become even more strained.

[21] An alternative improvement in the reliability of national public sector deficits would be to have independent experts at the national level evaluate the figures, particularly *ex ante*, as advocated by a number of academic economists.

There are two elements in this reasoning. The *first*, several, if not most, of the governments in the Euro area have a degree of confidence in the stabilising properties of their budgetary policies which seems excessive. *Second*, even if there remains some modest encouragement of demand to be gained from well-designed tax cuts and possibly expenditure increases, longer-term sustainability has become such an important issue that the stimulus may have to be reversed shortly. Let me elaborate briefly.

On the first point, recent empirical research by academic economists, the Commission and the OECD[22], suggests that lower public saving through a larger deficit tends to be partially offset – on average at least to the extent of one half – by higher private saving and that this offset is strongly path-dependent, i.e. the larger the initial deficit, the larger the offset. Given this non-linearity the offset may well become nearly complete if the deficit is already large and much critical attention is focussed on it. A recent supplementary illustration is provided by opinion polls of household attitudes to additional consumer spending following the tax cuts announced in Germany and advanced in 2003-04; only a tiny proportion of households expected to spend the additional disposable income. While all Euro area countries may still be some distance from budgetary positions where it could be argued that contractionary policies would have net expansionary effects – not least because the impact via lower interest rates could only be marginal in the present context – it is a surprise that governments continue to emphasise the negative impact of consolidation on demand at the expense of its longer-run benefits. Stabilisation policy is being oversold.

On the second point, long-term projections of public finances in the Euro area over the next 3-4 decades suggest a clear absence of sustainability in several countries, barring major revisions of policy. These projections, based on foreseeable demographics, pension entitlements and a well-established tendency for the demand for publicly–provided health services to grow faster than incomes, are, of course, well-known to policy-makers and they have been analysed in a comparative perspective by the Commission and by other international institutions – although no agreed common methodology has as yet been developed. Early steps in pension reforms, notably by weakening incentives for early retirement, have been taken, even in France and Germany. But the public understanding of the urgency of such steps remains very limited, as long-term imbalances in public finances are difficult to communicate to the electorate. So the main parameters that drive the future public sector imbalances are subject to only very slow modifications. Hence the need to improve the current stance of fiscal policy is impossible to escape.

At the OECD where we are under no obligation to defend the fiscal rules of EMU – our many non-Euro area members would not agree – we are convinced of their rationale. I quote from the most recent OECD Survey of the Euro area (September 2004):

---

[22] See i.a. Gali and Perotti (2003), Commission (2003) and OECD (2004).

> "More fundamentally, and even on an optimistic assessment of the fiscal impact of population ageing, the close to balance or in surplus rule (for cyclically-adjusted balances. NT) is the minimum required in the next two decades to underpin fiscal sustainability beyond this horizon."

This is not just advice for Italy or Greece, but also for France and Germany which have unsustainability problems of alarming proportions, as is spelled out in some detail in their country reviews.

It is a major disappointment that the governments of the largest European economies have chosen to delay their much needed consolidation while launching an outright attack on the fiscal rules in EMU. Instead of confrontation they could, if they found it too painful to try to convince their electorate of a programme of consolidation coupled with structural reform, have accepted the initially modest sanctions of the SGP, hence preserving the framework of the enforcement of any future fiscal rule vis-á-vis present or future EMU-countries.

Let me avoid too pessimistic a twist to this discussion of the fiscal rules for underpinning EMU in a longer-run perspective. Member states are behaving more responsibly than in earlier decades when fiscal policy was quite often procyclical, most recently in the late 1980s. The Euro area also comes out better than the United States or Japan, though that offers little grounds for congratulation. Even without sanctions the 3% ceiling no doubt has some deterrent effects and Finance Ministers continue to refer to it in the respective domestic debates. And we may be coming to the end of the transgressions by the largest member states anyway. France and Germany have recently presented Stability Programmes for 2005 with actual deficits just under 3%. Hopefully, they are right. Also very important is the cautious reaction to the catalogue of possibilities for making the fiscal rules more flexible. The most far-fetched one of exempting major categories of expenditures from the deficit calculation seems to have stalled as different governments presented different ideas for what expenditures – all public investment, R & D expenditures, budgeting contributions to the EU, military expenditures and some other variants – to exclude. The idea of basing future monitoring more on *ex ante* magnitudes and less on *ex post* performances appears to have limited support. Governments have systematically been too optimistic in forecasting their fiscal situation and an explicit shift would give them added incentives to continue; basically they will have to assume full responsibility for their forecasts. The proposal, also in the Commission catalogue, to extend the "exceptional circumstances" in which sanctions can not be applied to "periods of prolonged slow growth", clearly appeals to several governments, but it would be so wide-ranging an exception that it should be resisted.

The ideal outcome would be of the governments of the EMU participants individually adopted rules to assure the sustainability of their public finances including specification of policy reforms modifying the parameters that underlie the future increasing strains on public finances. But until such intelligent long-term versions of balanced budget amendments have appeared, the admittedly simple and somewhat arbitrary fiscal rules in EMU should not be discarded but rather emphasised.

The second area where further reflection is required after some years with EMU is that of external relations for the Euro area, in particular the role of the exchange rate of the Euro. The Maastricht Treaty reflects the view that since the joint monetary policy is to be guided by medium-term price stability as its primary objective, there can be no systematic exchange-rate policy for the Euro. The decision-making surrounding this area has been criticised for ambiguity, but it is in my view reasonably clear: the ECB would have the decisive word. The circumstances under which politicians would be in a position to take outright decisions regarding the exchange rate are so exceptional – unanimity in ECOFIN on "formal agreements" with non-EMU countries on an exchange-rate system, that this looked highly unlikely. Closer to the realm of the possible is the prospect of finding a qualified majority of Finance Ministers ready to agree on "general orientations" for exchange rate policy vis-à-vis particular foreign currencies without any formal agreements. But any such orientations would have to follow consultations with the ECB and be "without prejudice to the primary objective to maintain price stability". The cards were clearly stacked against political influence in this area to safeguard the independence of the new central bank.

Against this background it should come as no surprise that, despite major swings in the EUR-USD rate – a reduction of the value of the euro by nearly one third between the start of EMU and late 2000 and a strengthening of the euro by more than half from then until today – no agreement in the Eurogroup has emerged on "general orientations". As the Euro dropped towards its low of 83 US cents in the autumn of 2000 a common understanding developed between the Eurogroup and the ECB that further depreciation not only added to inflation but was also becoming an embarrassment for everyone with some responsibility for EMU. So there were brief intervention episodes, in September with some other G7 central banks, in early November with the ECB acting alone. Currency relationships then stabilised and after a year and a half of some volatility but no trend the Euro started a long recovery. There is once more talk of intervention to check a further rise – which is the immediate reason why we have lost my oldest central bank friend Tommaso Padoa-Schioppa as a speaker in this conference.

However, this time there is more likely to be disagreement between the political and the monetary authorities in Europe as to the proper course of action than was the case four years earlier. The sensitivity of the politicians to euro appreciation is somewhat greater than of the ECB. Appreciation creates serious concern in some European industries, but it does help the ECB to keep inflation near 2% without raising interest rates. Would it serve a purpose to intervene? I doubt it, not because I belong to the large group of economists who attribute no significant effects to intervention; indeed when carried out at the right time it is likely to temporarily reverse or at least halt currency movements – even when done unilaterally. The Japanese experience in recent years is moderately encouraging with respect to the effects of interventions. I also agree with Paul de Grauwe that we have the means in Europe for supporting the dollar in a massive way – if we want to. Given the imbalances in the market, support could well have to be massive, somewhat on the Japanese scale. But there is a contrast to the situation in Japan which was marked by (mild) deflation and a search for assets that could be bought to create money. Dollar assets came in handy in this context. All of that is quite different in the Euro area where inflation is more or less on target, liquidity is ample banks are healthily profitable and asset prices are not depressed or still declining.

More fundamentally, further dollar depreciation is an inescapable part of the adjustment, even when other major currencies in Asia relieve a bit of the burden on the euro by allowing their currencies to rise against the USD. The United States has to curtail its budget deficit and go through a period of slower growth, but it is not obviously in the European interest to put primary emphasis on the latter rather than on dollar depreciation; anyway both will have to come into play.

Is it inconsistent of the Euro area to have put so much emphasis on eliminating exchange-rate fluctuations inside the area and then do so little to constrain movements in the EUR-USD rate? Some of the same arguments that prompted currency unification in Europe apply globally, but the differences in both the functioning of the economies and in policies are too great to allow systematic efforts to stabilise exchange rates across the Atlantic.

Helmut Schmidt used to say: once there is a single currency in Europe the United States will recognise the risk of conducting the kind of unilateralist policies that marked the past. The current and continuing US Administration has not taken much notice. In that sense the Euro area has been a disappointment – and it would have made little difference to bilateral monetary and macroeconomic relationships if the Euro area had developed from the start a stronger external representation on the political side. It is nevertheless useful that the Eurogroup has now anticipated the kind of change contained in the Constitutional Treaty draft to abandon the rotating six-month Presidency in favour of a President elected by his peers for a couple of years. It is impossible to keep the exchange rate of the euro out of the political debate, so the best one can do is to limit the number of participants in the debate. An articulated position developed in the Eurogroup should make it a bit more difficult for leading national politicians to enter the debate as if their viewpoint represented the whole Euro area. In this perspective the ECB should welcome the new structure, although it is clear that they are uneasy about it. The ECB could benefit from a cooperative relationship with the political authorities rather than being alone on the stage together with some national Finance Ministers.

There is a third area where present arrangements may be said to reflect the somewhat narrow focus of the Maastricht Treaty. In order to allow the ECB to concentrate on its role in monetary policy there was an effort on the part of Germany and some others to keep the new central bank out of financial supervision, indeed to give it no explicit role in maintaining financial stability. The argument was a double one: there might be a conflict of interest between the two tasks and there was political reluctance to give the already strong new central bank power also in this area. So instead the home country control principle in financial supervision was strengthened. Furthermore, over the past decade responsibility for supervision in several EU member states has gravitated towards a national mega regulator with responsibility for banks, securities markets and insurance/pen-sion funds.

These two developments have tended to marginalise the National Central Banks and via them the ECB in relation to responsibility for financial stability. This is a source of concern at a time when some institutions, be they banks or financial conglomerates are becoming very large, not only in relation to the financial markets in their home countries, but also large enough to be of systemic importance in the Euro area as a whole. Unless the ECB and the National Central Banks in the Eurosystem are well informal about the risks undertaken by this (small) group of strategically important financial institutions the Eurosystem could more easily be pushed into significant injections of liquidity at times of crisis than if it had been more continuously informed.

It will be argued that there is no need to involve the Eurosystem or its national components in most supervisory tasks which have very limited implications for financial stability in the broad sense. This is certainty correct – as is the observation than national financial supervisors have extended their cooperation through networks of bilateral Memoranda of Understanding or multilaterally on an ad hoc basic for particularly large individual institutions. But the case remains for involving the Eurosystem in the latter types of exchange of information and at least for not discouraging the central banks form monitoring risks that have a macroeconomic dimension, regardless of the institutional framework within which they can be identified. In this context it would have been desirable to make use of the provision in the Maastricht Treaty (Art. 105.6 in the original numbering) to confer upon the ECB specific tasks concerning policies relating to the prudential supervision of credit institutions[23].

Let me summarise my views on the present challenges. The basic structure of the Eurosystem is sound and has proved its ability to deliver what was expected or hoped for: the preservation of a historically low and fairly stable rate of inflation based on an efficient central banking institution well protected against political influence in its operational activities and even in the interpretation of what medium-term price stability means. But this unusually clear and purist view of monetary policy inspired some counter initiatives at Maastricht or subsequently which should now be re-evaluated in the light of experience.

The three areas I have referred to have a common element. Governments seem to have said to themselves at Maastricht: we are now creating an exceptionally strong and independent central bank. Let us now introduce some side conditions to assure that it does not become too strong: mild procedures – the EDP – for monitoring public deficits which still leave a good deal of room for national fiscal policy, some political influence over the joint

[23] It is unfortunate that the Article quoted specifically exempts insurance undertakings as being out of bounds for central banks prudential supervision, since some of the largest financial institutions in the Euro area merge banking and insurance activities. Apparently there was no initiative to reconsider this constraint when the Draft Constitutional Treaty was prepared.

exchange rate policy and a clear separation of the responsibilities for monetary and financial stability with the latter kept firmly in the hands of national supervisors.

With the adoption of the SGP in 1997 there was, with respect to the first of these three areas a step away from procedures towards apparently firm rules to constrain clearly deviant national behaviour. But the recent period suggests that this step was more apparent or temporary than real although the final verdict is not in yet. As far as the other two are concerned, the role of the Eurosystem remains limited, as was the intention at Maastricht, but there is no clear alternative (political) authority to fill any void in the decision-making. In the case of foreign-exchange intervention there is now a more permanent Presidency of the Eurogroup, but that does not necessarily provide for a clear voice as long as the participating countries do not agree amongst themselves. As to prudential supervision and regulation the most significant evolution is the emergence of national mega regulators. There have been significant efforts to achieve deeper financial integration through the Financial Services Action Plan (FSAP) and more convergence of supervisory practices, but there are grounds for doubt whether the slow and somewhat haphazard steps in the latter area are adequate for the limited number of large financial institutions with cross-border activities that are beginning to emerge in Europe.

There is a common element in the way the additional challenges and opportunities that have become more evident are being faced – or rather not faced. With the Eurosystem the first European institution with a federal structure and mandate has been created. There is a source of strength for all the participants which should be used fully, rather than being jealously circumscribed to preserve tasks for the national and European authorities. On fiscal policy national governments should respect rules, not very different from today's SGP. EMU has become robust enough to withstand some transgressions of the rules in the short term, but governments endanger both the sustainability of their finances in the longer term and the survival of EMU over a similar horizon by treating the shorter-term fiscal rules they have agreed to as cavalierly as in the recent past. On exchange rate policy and interventions the Eurosystem should be less subjected to frequent political statements that make its task more difficult; the new organisation of the Eurogroup may be helpful in that respect. Finally, with respect to prudential supervision the political authorities should welcome clearer involvement by the Eurosystem in maintaining financial stability across markets and institutions.

Some acknowledgements

More than half a century ago I took up the study of Economics at the University of Copenhagen which has remained my base ever since. You may think that the University and its Economics Department was then a backwater. It was certainly a small place; in the late 1950s only 20-25 graduated annually with a Masters Degree, about one tenth of today's output. But the faculty was highly competent and diverse in its interests. I recall with gratitude the inspiring teaching in Monetary Economics by Erik Hoffmeyer, later to

become Governor of Danmarks Nationalbank, and in Business Cycles and Growth by the late Poul Nørregaard Rasmussen who founded the Institute of Economics in 1958. But we were also very well served in Industrial Organisation, International Economics and Theoretical Statistics. There was a rich body of practical experience in the Department which was drawn upon to illustrate the application of economic analysis to policy problems. Finally, there was a regular flow of interesting foreign visitors, and not only from Scandinavia. Like many of my successors as graduate students here I was encouraged to see when I spent a year at Harvard and MIT that my training was adequate to enable me to benefit fully from the inspiration provided by the very best economists.

In my case much of the inspiration came from Franco Modigliani at MIT. I had the privilege of assisting in the preparation of a couple of articles in which the work of Milton Friedman on the transmission of changes in the supply of money to prices and output was taken severely to task. Nevertheless, and to Franco's disappointment, I gradually developed more monetarist sympathies in the course of the 1960s and 70s as reflected in my assessment of Friedman's work for the Nobel Committee, written in 1973.

After three useful years on the staff of the Danish Ministry of Economic Affairs which also gave me a taste for committee work in an international organisation (OECD) I returned to the University as Lecturer in 1964 and embarked on a monograph on monetary policy in Denmark in the post-war period. I much enjoyed teaching, but found my somewhat inconclusive largely empirical research a bit frustrating. So once it was finished I sought challenges, first a year and a half as part of a Harvard team of Advisors to the Ministry of Finance of Malaysia – for once warning against overly cautions fiscal policy – and then a similar period a Head of Monetary Division in the OECD in Paris where early friendships with international economists and central bank officials were formed as a by product of the preparation of a series of reports on the monetary transmission mechanism in the largest industrial economies.

Returning to a regular chair at the University of Copenhagen in late 1972 I was better equipped for both teaching and research; since then I have never been away for more than three months at a time. Teaching alternately the two main graduate courses of Money and Banking and International Money and Finance provided the main challenges, and as my involvement in European monetary integration picked up I could make use of all the work of which I become aware in my writings and in graduate seminars. I pride myself that students in these seminars were unusually well-informed about both academic and official work – and they responded with great curiosity and enthusiasm. I can truthfully say that the level of discussion was not notably inferior to that which I could observe in most of the many committees in which I took part. And a number of the Master Theses I have supervised have taught me a lot and pushed me to raise significant points in international contacts.

In short, over the past three decades or so I see my activities, however disparate they may have seemed to others, as quite coherent. I brought back some important policy issues to the university in justification of the long periods in which I was partially absorbed elsewhere. Nevertheless, I am deeply grateful to the Institute of Economics for the liberal attitude they have shown towards me. It is all the more remarkable since the Institute of Economics has derived most of its strength in the last couple of decades from younger, analytically advanced colleagues to whom my activities will have seemed rather far from the focus on economic research which has become the benchmark of performance.

The most recent decade has added very valuable experiences for me. One, internal to the University, has been the build-up since 1993 of the Economic Policy Research Unit (EPRU), most of the time headed by my close colleague Peter Birch Sørensen, the organiser of to-day's conference. EPRU has become an additional source of strength for our Department through many contributions to policy analysis in a Danish and an international context and it has been a privilege to take part in its activities. A second major opportunity for me was the donation by Danske Bank of a Special Professorship in International Economics, a position which I had the privilege to hold from 1998 to 2003. It gave me the freedom to accept two successive international challenges – participation in 1998-99 in a panel of three independent evaluators of IMF surveillance and the chairmanship since July 2000 of the Economic Development Review Committee of the OECD. These experiences have given insight into the effectiveness of international advice on economic policies and brought additional inspiration for teaching and research. I look forward to continuing my OECD activities for some time yet.

It has become obvious to me that I have not adjusted mentally to what the Germans call "Ruhestand", a state of quiet and peace. I shall miss the University, in particular the regular contact with good graduate students coming to discuss parts of their thesis work. I regard those that I have come to know well in this process as my real network and I shall continue to follow their progress here or abroad – in the latter case with the hope they will return because their talents are very much needed here.

While I have faced this day and my final lecture with a mixture of pride and nostalgia there obvious compensating factors in being relieved of several duties. My family has shown great patience with my extensive commitments at the University and abroad and I look forward to spending more time with them. In this spirit I dedicate this lecture to my 10-year old son Nicolas.

REFERENCES

Artis, Michael, Axel Weber and Elizabeth Hennessy (eds.) (2000), *The Euro – A Challenge and Opportunity for Financial Markets*, Routledge for SUERF, London and New York.

Baer, Gunter and Tommaso Padoa-Schioppa (1989), "The Werner Report Revisited", in Collection of papers annexed to *Report on Economic and Monetary Union (The Delors Report),* EC Publication Office, Luxembourg, pp. 129-55.

Basevi, Giorgio, Michele Fratianni, Herbert Giersch, Pieter Korteweg, Daniel O'Mahoney, Michael Parkin, Theo Peeters, Pascal Salin and Niels Thygesen (1975), "The All Saints Day, Manifesto for European Monetary Union" *The Economist,* 1 November.

Basevi, Giorgio, Paul de Grauwe, Emil Claassen, Pascal Salin and Niels Thygesen (1976), "Towards Economic Equilibrium and Monetary Unification in Europe", *Optica Report `75* Commission of the European Communities, Brussels, March.

Basevi, Georgio, Paul de Grauwe, Pascal Salin, Hans-Eckhart Scharrer and Niels Thygesen (1977), "Inflation and Exchange Rates: Evidence and Policy Guidelines for The European Communities", *Optica Report '76,* Commission of the European Communities, Brussels, February.

Birch Sørensen, Peter (ed.) (2004), *Monetary Union in Europe - Historical Perspectives and Prospects for the Future* (Essays in Honour of Niels Thygesen, DJØF Publishing, Copenhagen.

Commission of the European Communities (2003), "Can Fiscal Consolidation be Expansionary?", Part IV in *Public Finances in EMU 2003,* Brussels.

Delors, Jacques *et al.* (1989), *Report on Economic and Monetary Union* (*The Delors Report),* EC Publishing Office, Luxembourg.

Gali, Jordi and Roberto Perotti (2003), "Fiscal Policy and Monetary Integration in Europe", *Economic Policy 37.*

Giavazzi, Francesco, Stefano Micossi and Marcus Miller (eds.)(1988)*, The EMS*, Banca d'Italia, Centro Interuniversitario di Studi Teorici per la Politica Economica and Centre for Economic Policy Research, Cambridge University Press, Cambridge.

Gros, Daniel and Niels Thygesen (1988), *The EMS - Achievements, Current Issues and Directions for the Future* CEPS Paper No. 35, Centre for European Policy Studies, Brussels.

Gros, Daniel and Niels Thygesen (1998) *European Monetary Integration – From the EMS to EMU*, *Longman*, *London.*

Gros, Daniel, Massimiliano Castelli, Juan Jimeno, Thomas Mayer and Niels Thygesen (2002), *The Euro at 25*, Special Report on Enlargement, Centre for European Policy Studies, Brussels.

Gros, Daniel, Juan Jimeno, Thomas Mayer, Niels Thygesen and Angel Ubide (2003), *Adjusting to Leaner Times*, Centre for European Policy Studies, Brussels.

Marjolin, Robert (1986), *Le Travail d'une Vie*, Edition Robert Laffont, Paris.

McDougall, Sir Donald *et al*. (1977), *Report of the Study Group on the Role of Public Finances in European Integration*, Vols. I-II, Commission of the European Commission, Brussels.

OECD (1975) *The Role of Monetary Policy in Demand Management, The experience of Six Major Countries,* OECD Monetary Studies Series, OECD, Paris.

OECD (2004a), *Economic Survey of the Euro Area*, OECD, Paris.
OECD (2004b), *Economic Outlook 76*, OECD, Paris.

Padoa-Schioppa, Tommaso (1988), "The European Monetary System: A Long-Term View" in Giavazzi, Micossi and Miller (*eds*.) *op.cit.,* pp. 369-84.

Padoa-Schioppa, Tommaso (1994), *The Road to Monetary Union in Europe*, Oxford University Press, Oxford.

Pöhl, Karl-Otto (1989), "The further Development of the EMS" in Collection of Papers attached to the *Delors Report*, EC Publication Office, Luxembourg, pp. 129-55.

Summers, Lawrence E. (1997), Speech, Euromoney Conference, April.

Thygesen, Niels (2000), "Evolving Ambitions in Europe's Monetary Unification", in Artis, Weber and Hennessy (eds.) *op.cit.* pp. 29-56.